OrnitJiorliyncTiiis comes nearest to the reptile in the fact that this axis is nearly at right angles to that of the sacrum. It is particularly interesting to find that this peculiarity of *Orni-tliorliynclmis* is only acquired later in life, and that the pelvis of the foetus conforms in these angles to the adults of other mammalian groups. In any case, the backward rotation of the pelvis is a mammalian characteristic,, and it is most nearly approached among reptiles by the extinct Anomodontia, whose affinities to mammals will be dealt with on a later page (p. 90). Another peculiarity of the mammalian pelvis appears to be the cotyloid bone already referred to. In the JEttibbit this bone completely shuts out the pubis from any share in the acetabular cavity ; later it ankyloses with that bone. In *OrnitJiorhi/ncJius* the cotyloid or os acetabuli is a larger element of the girdle than is the pubis. In other mammals, therefore, it seems to be a rudimentary structure. But it seems to be a bone peculiar to and thus distinctive of the mammals as compared with other vertebrates. The acetabular cavity is perforated in *Echidna* as in birds; but in certain Hodents the same region is very thin and only closed by membrane, as in *Circolabes villosus.*

The number and the arrangement of the bones in the Mud-limb correspond exactly to those of the fore-limb. The femur, which corresponds to the humerus, shows some diversities of form. The neck, which follows upon the almost globular head, the surface of articulation to the acetabular cavity of the pelvis, has two roughened areas or tuberosities for the insertions of muscles, A third such area, known as the third trochanter, is present or absent as the case may be, and its presence or absence is of systematic import. As a general rule the thigh-bones of the ancient types of mammals are smoother and less roughened by the presence of these three trochanters than in their modern representatives. The radius and the ulna are represented in the hind-leg by the tibia and the fibula. These bones are not crossed, and do not allow of rotation as is the case with the radius and the ulna. In Ungulate animals there is

the same tendency to the shortening and rtzdimentary character of the fibula that occurs in the case of the ulna, but it is more marked.

It has been shown in tracing the history of fossil Ungulates that the hind-limbs in their degree of degeneration are as a rule ahead pf the fore-limbs. This is natural when we reflect that